(REPLACEMENT SHEET)
Attorney Docket No.: 1033-IT1003
Inventor(s): Baofeng Frank Jiang, et al.
Attorney: Jeffrey G. Toler
(512) 327-5515

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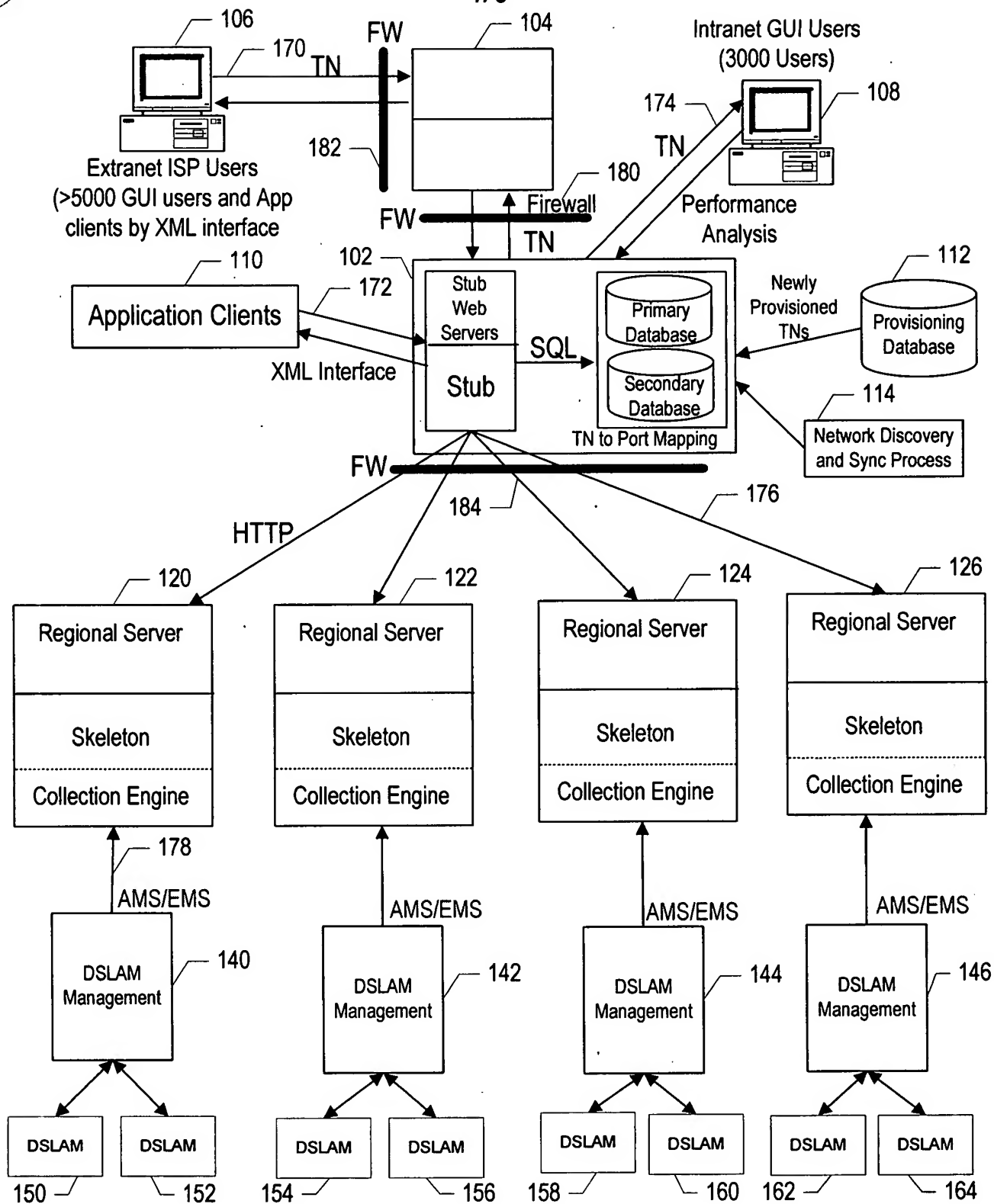
FIG. 1

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Real-time ShowRF ▭ ▢ X

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⬅ ➡ (X) ⌂

Address | http://broadband.sbc.com/LPA/showRF?phone=925-828-5182 | ▼

(HOME) Real-time Loop Performance Analyzer (DOC)
(It takes about 20 seconds to collect data from the DSLAM. Please be patient)

— 202

Phone: | 925-828-5182 | **Run Reports**
(format: 925-484-3260 or 9254843260

Customer: **925-828-5182**   DSLAM time: **2003-06-20 09:21:10**
PORT: ADSL-3-1-11-1   DSLAM: SNRMCA11H02

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Line Attributes (Doc)

ADSLPROF	ADSLPROFNM	Code	NT VPI	NT VCI	Line VPI	Line VCI	Status	STATUSNE	STATUSFE
25	384_128_fixed_basic	FAST	214	42	8	35	IS-NR	NORMAL	NORMAL

Speed (kbps)	MAXATTAINBR	MINBR	MAXBR	CURBR	PWR(dBm)	MAXAPLVL		CURPWR
Downstream	960	384	384	384	Downstream	20		15
Upstream	672	128	128	128	Upstream	13		2

NMR(dB)	MINNMR	MAXNMR	TNMR	CURNMR	Others	CELLS	ATEN(dB)	RELCAP(%)
Downstream	0	10	6	12	Downstream	42556304	55	47
Upstream	0	10	6	18	Upstream	30760976	41	28

FIG. 2

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Line Analysis

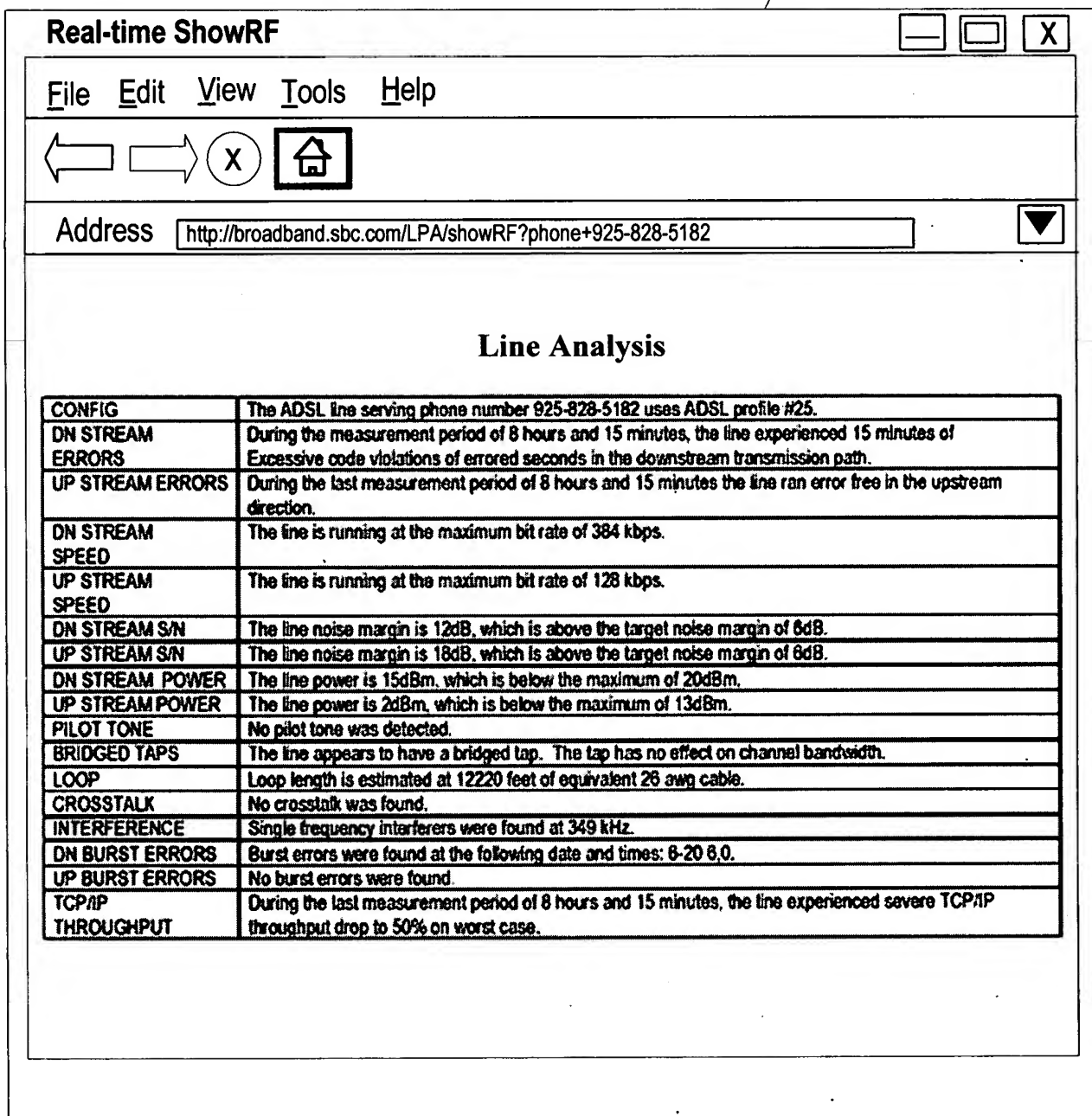| CONFIG	The ADSL line serving phone number 925-828-5182 uses ADSL profile #25.
DN STREAM ERRORS	During the measurement period of 8 hours and 15 minutes, the line experienced 15 minutes of Excessive code violations of errored seconds in the downstream transmission path.
UP STREAM ERRORS	During the last measurement period of 8 hours and 15 minutes the line ran error free in the upstream direction.
DN STREAM SPEED	The line is running at the maximum bit rate of 384 kbps.
UP STREAM SPEED	The line is running at the maximum bit rate of 128 kbps.
DN STREAM S/N	The line noise margin is 12dB, which is above the target noise margin of 6dB.
UP STREAM S/N	The line noise margin is 18dB, which is above the target noise margin of 6dB.
DN STREAM POWER	The line power is 15dBm, which is below the maximum of 20dBm.
UP STREAM POWER	The line power is 2dBm, which is below the maximum of 13dBm.
PILOT TONE	No pilot tone was detected.
BRIDGED TAPS	The line appears to have a bridged tap. The tap has no effect on channel bandwidth.
LOOP	Loop length is estimated at 12220 feet of equivalent 26 awg cable.
CROSSTALK	No crosstalk was found.
INTERFERENCE	Single frequency interferers were found at 349 kHz.
DN BURST ERRORS	Burst errors were found at the following date and times: 8-20 8,0.
UP BURST ERRORS	No burst errors were found.
TCP/IP THROUGHPUT	During the last measurement period of 8 hours and 15 minutes, the line experienced severe TCP/IP throughput drop to 50% on worst case.

FIG. 3

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Line Code Violation and Error Seconds

Downstream Line code violation: — 402

Time	9:15	9:0	8:45	8:30	8:15	8:0	7:45	7:30	7:15	7:0	6:45	6:30	6:15	6:0	5:45	5:30
Value	0	0	0	2	4	3	307	1	0	1	1	1	121	3063	0	0

Time	5:15	5:0	4:45	4:30	4:15	4:0	3:45	3:30	3:15	3:0	2:45	2:30	2:15	2:0	1:45	1:30	1:15
Value	0	0	1	0	0	0	0	0	2	0	0	0	2	0	0	1	0

Upstream Line code violation: — 404

Time	9:15	9:0	8:45	8:15	8:0	7:45	7:30	7:15	7:0	6:45	6:30	6:15	6:0	5:45	5:30
Value	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Time	5:15	5:0	4:45	4:30	4:15	4:0	3:45	3:30	3:15	3:0	2:45	2:30	2:15	2:0	1:45	1:30	1:15
Value	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Downstream Error Seconds: — 406

Time	9:15	9:0	8:45	8:15	8:0	7:45	7:30	7:15	7:0	6:45	6:30	6:15	6:0	5:45	5:30
Value	0	0	02	3	3	16	1	0	1	1	1	56	135	0	0

Time	5:15	5:0	4:45	4:30	4:15	4:0	3:45	3:30	3:15	3:0	2:45	2:30	2:15	2:0	1:45	1:30	1:15
Value	0	0	1	0	0	0	0	0	2	0	0	0	2	0	0	1	0

Upstream Error Seconds: — 408

Time	9:15	9:0	8:45	8:15	8:0	7:45	7:30	7:15	7:0	6:45	6:30	6:15	6:0	5:45	5:30
Value	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Time	5:15	5:0	4:45	4:30	4:15	4:0	3:45	3:30	3:15	3:0	2:45	2:30	2:15	2:0	1:45	1:30	1:15
Value	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

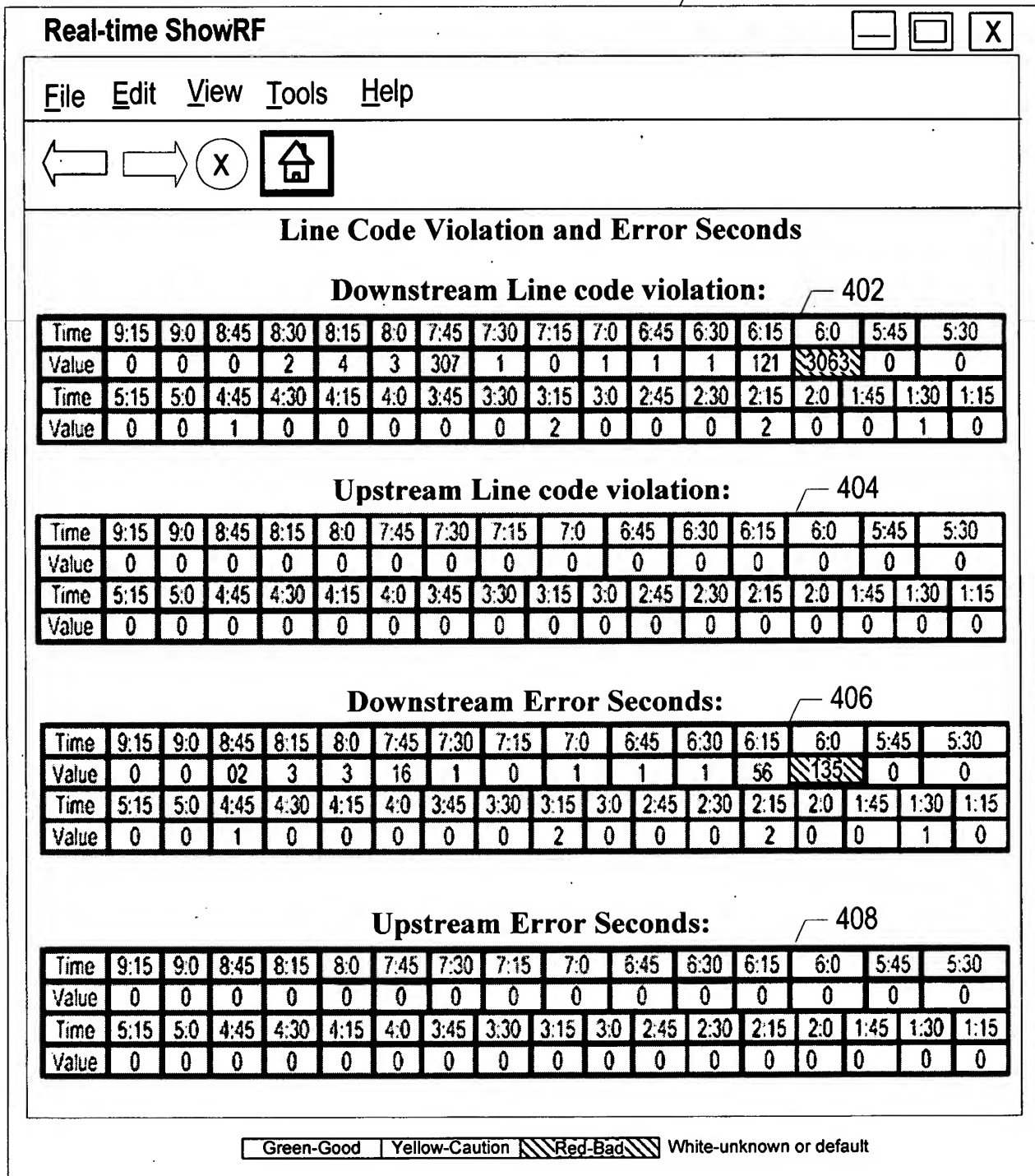Green-Good | Yellow-Caution | Red-Bad | White-unknown or default

FIG. 4

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─ 500

Comments ▭ ▯ X

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Address ▼

Please enter comments on line 925-828-5182:

Phone: | 925-828-5182 | ─ 502

UserID: | bj2181 | ─ 504

Comments: ─ 506

| There is a burst error on this line at 10:30 AM 6/18/03. ▲

--rw8264 Fri Jun 20 10:34:33 PDT 2003

▼ |

| Clear | | Send Comments |

Note: The maximum comment size is 3.5KB. If the size exceeds, you need to delete the part you don't want.

FIG. 5

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⇐ ⇒ (X) [⌂]

Card Selected — 606

rack	shelf	card
2	1	5

602 — **Card Information**

slot	current sw vers	state	current equip	sw vers	equip type
LT-2-1-5	HH3CAB4.184	IS-NR	ADLT-E	HH3CAB4.1	ADLT-E

Port Information

604

	port id	state	vp	vc	dsl tn
Port 1	ADSL-2-1-5-1	IS-NR	205	43	925-551-3826
Port 2	ADSL-2-1-5-2	IS-NR	102	81	925-828-4358
Port 3	ADSL-2-1-5-3	IS-NR	205	44	925-828-6233
Port 4	ADSL-2-1-5-4	IS-NR	216	195	925-828-5470

Port Legend — 610

In Service, Network Ready
Out of Service, Unavailable
Out of Service, Maintainance
Out of Service, Unavail/Maint

Card Legend — 608

NT- Network Interface	Extender Card
Line Terminator – In Service	No Data
Line Terminator – Out Of Service	Selected
Alarm Control Unit	

FIG. 6

(REPLACEMENT SHEET)
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RECEIVING AN INPUT TELEPHONE NUMBER AND MAPPING THE TELEPHONE NUMBER TO A PORT ADDRESS FOR A DIGITAL SUBSCRIBER LINE ACCESS MULTIPLEXER (DSLAM) IN COMMUNICATION WITH THE DIGITAL SUBSCRIBER LINE ELEMENT, THE DIGITAL SUBSCRIBER LINE ELEMENT LOCATED REMOTELY FROM THE DSLAM — 702

SENDING AN INTERROGATION REQUEST TO THE PORT ADDRESS OF THE DSLAM TO INTERROGATE THE DIGITAL SUBSCRIBER LINE ELEMENT — 704

COLLECTING RAW PERFORMANCE DATA OF THE DIGITAL SUBSCRIBER LINE ELEMENT IN RESPONSE TO THE INTERROGATION REQUEST — 706

CONVERTING THE RAW PERFORMANCE DATA TO ANALYZED PERFORMANCE DATA — 708

DISPLAYING THE ANALYZED PERFORMANCE DATA — 710

PROCESSING THE RAW PERFORMANCE DATA TO IDENTIFY FAULTY OPERATION INDICATORS WITH RESPECT TO THE DIGITAL SUBSCRIBER LINE ELEMENT — 712

FIG. 7

(REPLACEMENT SHEET)
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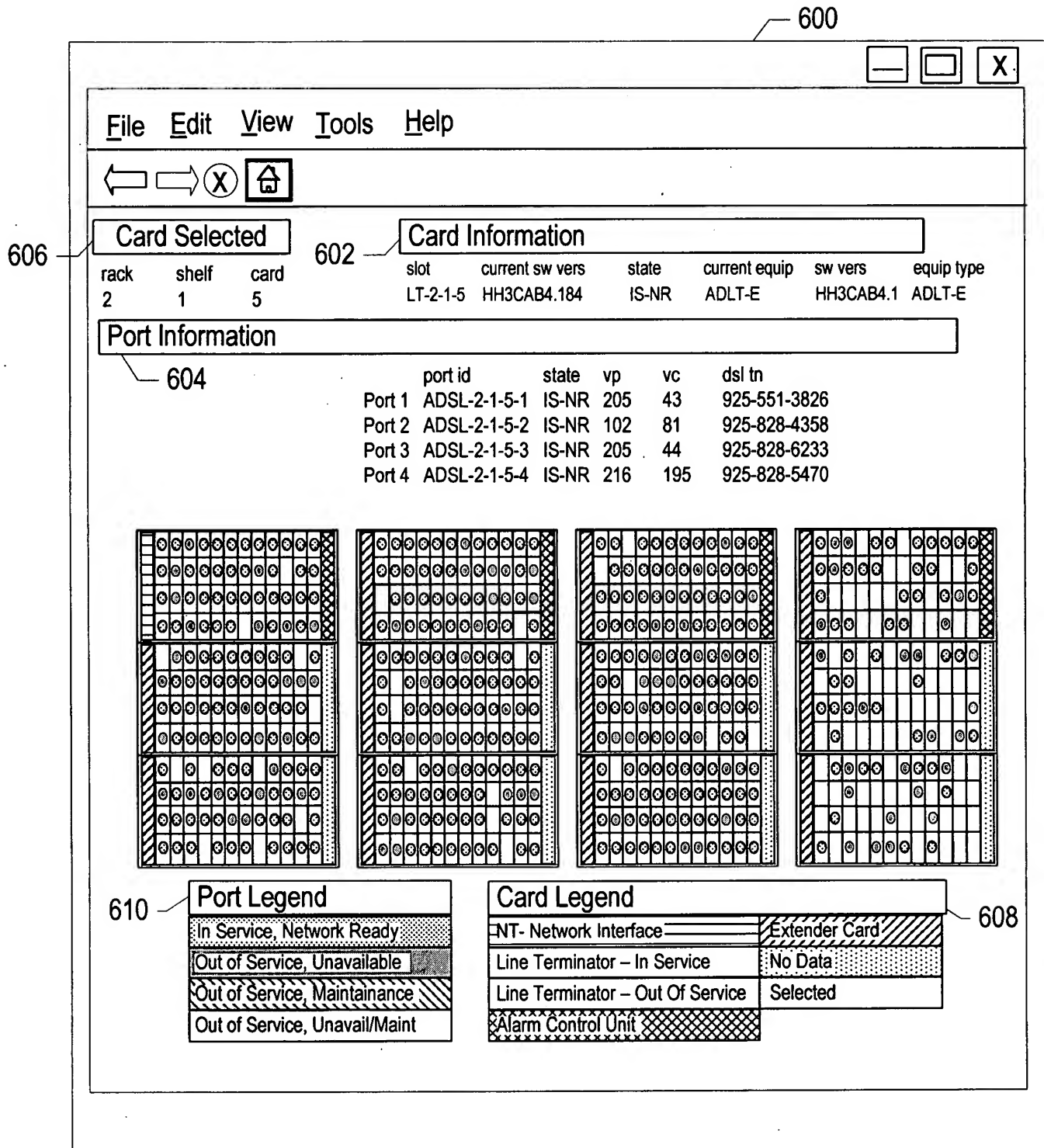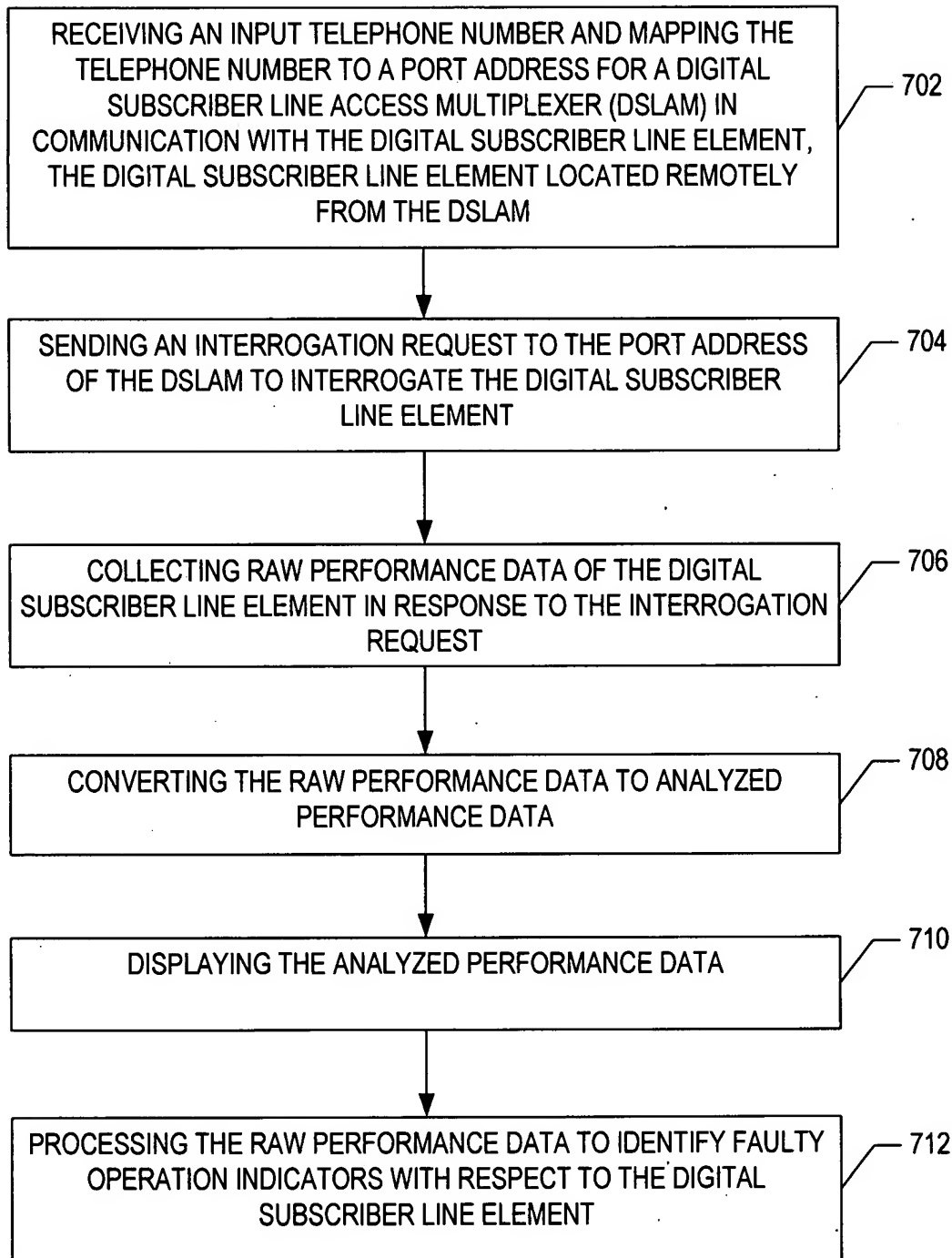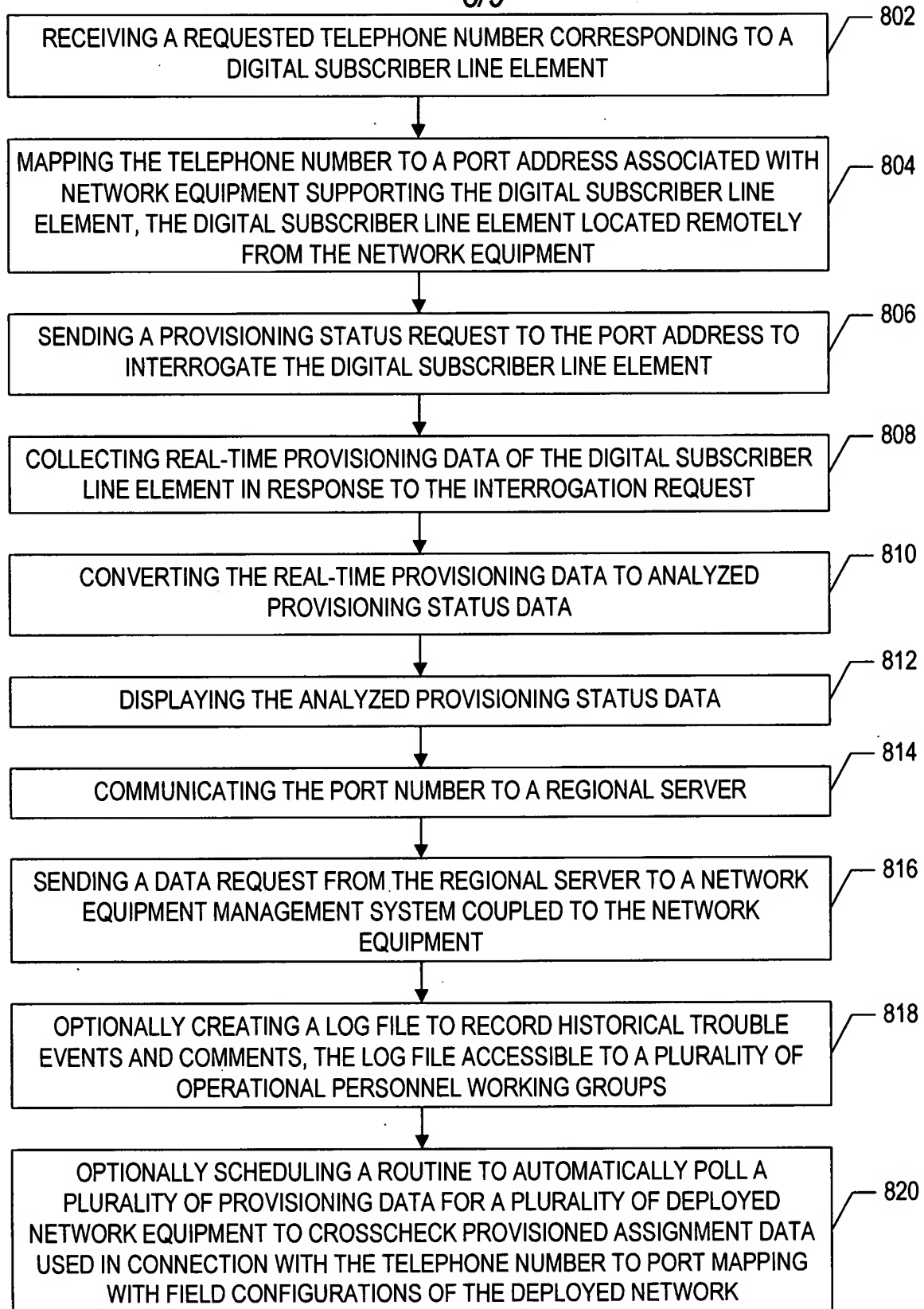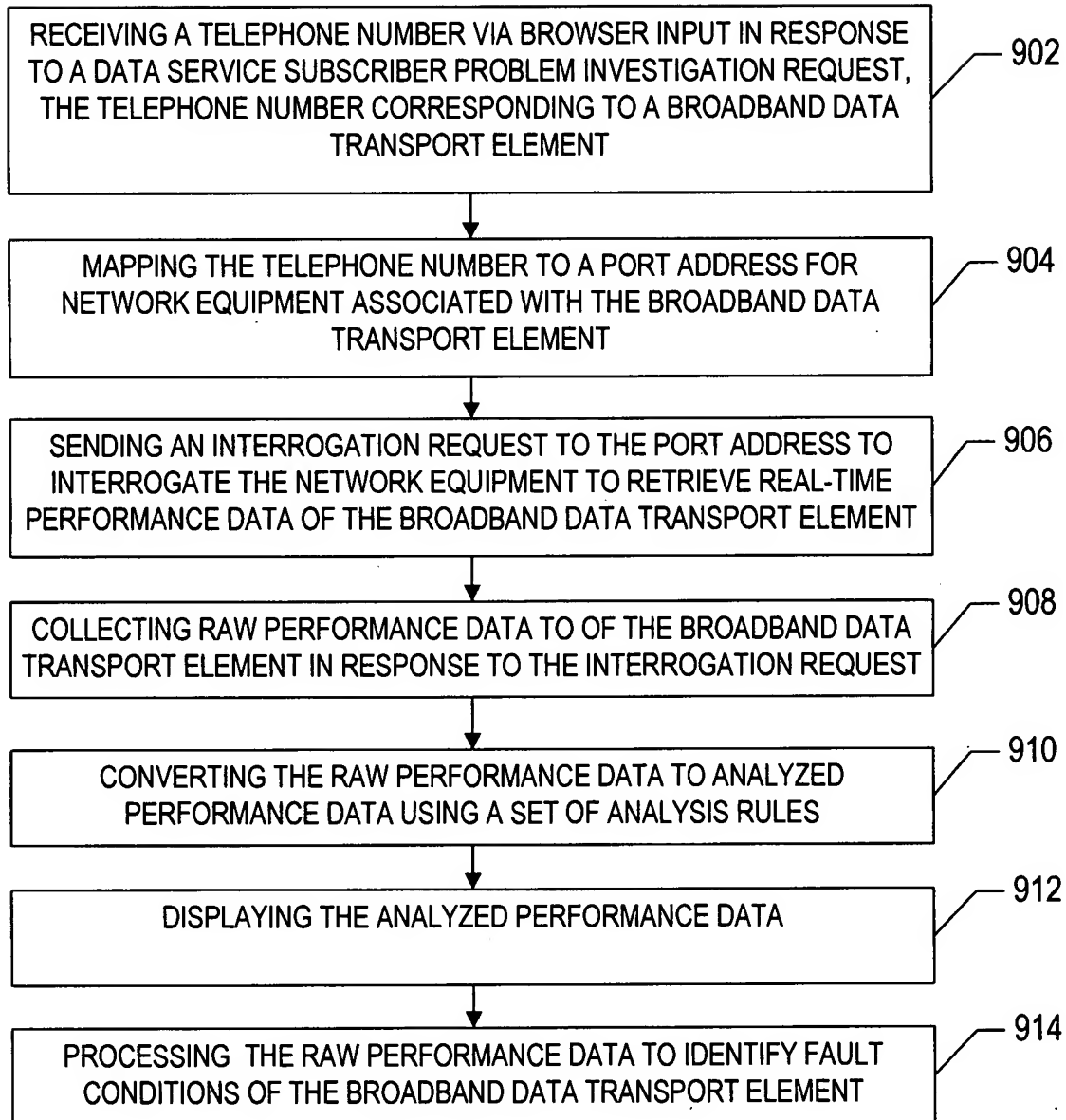Attorney: Jeffrey G. Toler
(512) 327-5515
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RECEIVING A REQUESTED TELEPHONE NUMBER CORRESPONDING TO A DIGITAL SUBSCRIBER LINE ELEMENT ⟋— 802

↓

MAPPING THE TELEPHONE NUMBER TO A PORT ADDRESS ASSOCIATED WITH NETWORK EQUIPMENT SUPPORTING THE DIGITAL SUBSCRIBER LINE ELEMENT, THE DIGITAL SUBSCRIBER LINE ELEMENT LOCATED REMOTELY FROM THE NETWORK EQUIPMENT ⟋— 804

↓

SENDING A PROVISIONING STATUS REQUEST TO THE PORT ADDRESS TO INTERROGATE THE DIGITAL SUBSCRIBER LINE ELEMENT ⟋— 806

↓

COLLECTING REAL-TIME PROVISIONING DATA OF THE DIGITAL SUBSCRIBER LINE ELEMENT IN RESPONSE TO THE INTERROGATION REQUEST ⟋— 808

↓

CONVERTING THE REAL-TIME PROVISIONING DATA TO ANALYZED PROVISIONING STATUS DATA ⟋— 810

↓

DISPLAYING THE ANALYZED PROVISIONING STATUS DATA ⟋— 812

↓

COMMUNICATING THE PORT NUMBER TO A REGIONAL SERVER ⟋— 814

↓

SENDING A DATA REQUEST FROM THE REGIONAL SERVER TO A NETWORK EQUIPMENT MANAGEMENT SYSTEM COUPLED TO THE NETWORK EQUIPMENT ⟋— 816

↓

OPTIONALLY CREATING A LOG FILE TO RECORD HISTORICAL TROUBLE EVENTS AND COMMENTS, THE LOG FILE ACCESSIBLE TO A PLURALITY OF OPERATIONAL PERSONNEL WORKING GROUPS ⟋— 818

↓

OPTIONALLY SCHEDULING A ROUTINE TO AUTOMATICALLY POLL A PLURALITY OF PROVISIONING DATA FOR A PLURALITY OF DEPLOYED NETWORK EQUIPMENT TO CROSSCHECK PROVISIONED ASSIGNMENT DATA USED IN CONNECTION WITH THE TELEPHONE NUMBER TO PORT MAPPING WITH FIELD CONFIGURATIONS OF THE DEPLOYED NETWORK ⟋— 820

FIG. 8

RECEIVING A TELEPHONE NUMBER VIA BROWSER INPUT IN RESPONSE TO A DATA SERVICE SUBSCRIBER PROBLEM INVESTIGATION REQUEST, THE TELEPHONE NUMBER CORRESPONDING TO A BROADBAND DATA TRANSPORT ELEMENT — 902

MAPPING THE TELEPHONE NUMBER TO A PORT ADDRESS FOR NETWORK EQUIPMENT ASSOCIATED WITH THE BROADBAND DATA TRANSPORT ELEMENT — 904

SENDING AN INTERROGATION REQUEST TO THE PORT ADDRESS TO INTERROGATE THE NETWORK EQUIPMENT TO RETRIEVE REAL-TIME PERFORMANCE DATA OF THE BROADBAND DATA TRANSPORT ELEMENT — 906

COLLECTING RAW PERFORMANCE DATA TO OF THE BROADBAND DATA TRANSPORT ELEMENT IN RESPONSE TO THE INTERROGATION REQUEST — 908

CONVERTING THE RAW PERFORMANCE DATA TO ANALYZED PERFORMANCE DATA USING A SET OF ANALYSIS RULES — 910

DISPLAYING THE ANALYZED PERFORMANCE DATA — 912

PROCESSING THE RAW PERFORMANCE DATA TO IDENTIFY FAULT CONDITIONS OF THE BROADBAND DATA TRANSPORT ELEMENT — 914

FIG. 9